PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of	Docket No: Q79004
Dimitri PAPADIMITRIOU, et al.	
Appln. No.: 10/766,841	Group Art Unit: 2445
Confirmation No.: 4575	Examiner: Jeffrey R SWEARINGEN
Filed: January 30, 2004	

For: ESTABLISHING DIVERSE CONNECTIONS VIA DIFFERENT EDGE NODES

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following:

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I. REAL PARTY IN INTEREST

Based on the information supplied by Appellants, and to the Appellants' legal representatives' knowledge, the real party in interest is the assignee, ALCATEL.

II. RELATED APPEALS AND INTERFERENCES

Appellants, as well as Appellants' assigns and legal representatives, are unaware of any appeals or interferences which will be directly affected by, or which directly affect or have a bearing on, the Board's decision in the pending case.

III. STATUS OF CLAIMS

Claims 1-10 are all the claims pending in the present application. Claims 1-10 have been finally rejected, and are the subject of this appeal. The pending claims are set forth in the appendix.

IV. STATUS OF AMENDMENTS

No amendments have been filed subsequent to the Final Office Action dated September 19, 2008.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

An exemplary embodiment of the present invention relates to a method for establishing a connection via a first serving edge node (e.g., Fig. 1, node 11) of a serving network. The method includes: receiving one or more diversity parameters defining one or more diversities between the connection and a further connection via a second serving edge node (e.g., Fig. 1, node 12) of the serving network, wherein the first serving edge node and the second serving edge node are different serving edge nodes (see, e.g., Fig. 1 and page 7, lines 9 - page 8, line 2); and exchanging information between the serving edge nodes and, in response to exchanged information, setting up at least a part of the connection (e.g., page 8, lines 3-12). *See, e.g., claim 1.*

Another exemplary embodiment of the present invention relates to a serving edge node for performing a method for establishing a connection via a first serving edge node (e.g., Fig. 1, node 11) of a serving network. The method includes: receiving one or more diversity parameters defining one or more diversities between the connection and a further connection via a second serving edge node (e.g., Fig. 1, node 12) of the serving network, wherein the first serving edge node and the second serving edge node are different serving edge nodes (see, e.g., Fig. 1 and page 7, lines 9 - page 8, line 2) ; and exchanging information between the serving edge nodes and, in response to exchanged information, setting up at least a part of the connection (e.g., page 8, lines 3-12) . The serving edge node comprises: a request-transceiver for transceiving a request to/from another serving edge node; a connection-parameter-transceiver for transceiving

connection parameters to/from another serving edge node; and a calculator for calculating at least a part of connection (e.g., Fig. 2, page 8, line 28 - page 9, line 15). *See, e.g., claim 7.*

Yet another exemplary embodiment of the present invention relates to an interface in a serving edge node (e.g., Fig. 1, node 11) for performing a method for establishing a connection via a first serving edge node of a serving network. The method includes: receiving one or more diversity parameters defining one or more diversities between the connection and a further connection via a second serving edge node (e.g., Fig. 1, node 12) of the serving network, wherein the first serving edge node and the second serving edge node are different serving edge nodes (see, e.g., Fig. 1 and page 7, lines 9 - page 8, line 2) ; exchanging information between the serving edge nodes and, in response to exchanged information, setting up at least a part of the connection (e.g., page 8, lines 3-12) . The interface includes: a request-transceiver for transceiving a request to/from another serving edge node; a connection-parameter-transceiver for transceiving connection parameters to/from another serving edge node; and a calculator for calculating at least a part of the connection (e.g., Fig. 2, page 8, line 28 - page 9, line 15). *See, e.g., claim 8.*

Yet another exemplary embodiment of the present invention relates to a client edge node (e.g., Fig. 1, node 21) for performing a method for establishing a connection via a first serving edge node (e.g., Fig. 1, node 11) of a serving network. The method includes: receiving one or more diversity parameters defining one or more diversities between the connection and a further connection via a second serving edge node (e.g., Fig. 1, node 12) of the serving network, wherein the first serving edge node and the second serving edge node are different serving edge nodes

(see, e.g., Fig. 1 and page 7, lines 9 - page 8, line 2) ; and exchanging information between the serving edge nodes and, in response to exchanged information, setting up at least a part of the connection (e.g., page 8, lines 3-12) . The client edge node comprises: a diversity-parameter-transceiver for transceiving diversity parameters to/from another node; and a connection-parameter-transceiver for transceiving connection parameters to/from another node (e.g., Fig. 3, page 9, line 16 - page 10, line 2). *See, e.g., claim 9.*

Yet another exemplary embodiment of the present invention relates to an interface in a client edge node (e.g., Fig. 1, node 21) for performing a method for establishing a connection via a first serving edge (e.g., Fig. 1, node 11) node of a serving network. The method includes: receiving one or more diversity parameters defining one or more diversities between said connection and a further connection via a second serving edge node (e.g., Fig. 1, node 12) of the serving network, wherein the first serving edge node and said second serving edge node are different serving edge nodes (see, e.g., Fig. 1 and page 7, lines 9 - page 8, line 2) ; and exchanging information between the serving edge nodes and, in response to exchanged information, setting up at least a part of the connection (e.g., page 8, lines 3-12) . The interface includes: a diversity-parameter-transceiver for transceiving diversity parameters to/from another node; and a connection-parameter-transceiver for transceiving connection parameters to/from another node (e.g., Fig. 3, page 9, line 16 - page 10, line 2). *See, e.g., claim 10.*

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 1-10 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by McCanne (U.S. Patent No. 6,611,872).

2. Claims 1 and 7-10 are provisionally rejected on the ground of non-statutory double patenting over claims 1 and 7-8 of co-pending Application No. 11/166,212, hereinafter referred to as App '212.

VII. ARGUMENT

A. McCanne does not anticipate claims 1-10 under 35 U.S.C. § 102(e). Specifically, McCanne does not disclose or suggest at least, "receiving one or more diversity parameters defining one or more diversities between said connection and a further connection via a second serving edge node of said serving network, wherein said first serving edge node and said second serving edge node are different serving edge nodes," as recited in claim 1.

Claims 1-10 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by McCanne. Appellants traverse this rejection at least based on the following reasons.

McCanne is directed to an overlay protocol and system for allowing multicast routing in the Internet to be performed at the application level. The overlay protocol uses "native" Internet multicast and multicast routing protocols to route information, according to overlay routing tables. Overlay groups are mapped to native multicast groups to exploit native multicasting in regional or local forwarding domains. Use of the overlay protocol allows overlay distribution to be handled in a more intelligent and bandwidth-managed fashion. Overlay routers are placed at each of several local area networks, Internet service provider's point of presence, enterprise, or other cohesively-managed locations. The overlay computers are configured according to bandwidth and security policies, and perform application-level multicast distribution across the otherwise disjoint multicast networks by using the overlay routing. The result is an overlay multicast network that is effectively managed according to local network management policies. Application-level control can be applied to the transferred data at the overlay routers. *See Abstract of McCanne.*

With respect to independent claim 1, Appellants submit that McCanne does not disclose or suggest at least, "receiving one or more diversity parameters defining one or more diversities between said connection and a further connection via a second serving edge node of said serving network, wherein said first serving edge node and said second serving edge node are different serving edge nodes" as recited in claim 1. In the Office Action dated April 3, 2008, the Examiner cites col. 11, line 51 - col. 12, line 4 of McCanne as allegedly satisfying the above-quoted feature, simply because McCanne discusses the exchange of connection parameters. Appellants submit that nowhere does McCanne disclose or suggest the receipt of one or more diversity parameters that define one or more diversities (or differences) between the connection with a first serving edge node in a serving network and a further connection with a second serving node of the serving network. The alleged exchange of connection parameters in McCanne does not necessarily denote diversity parameters defining differences between one connection via one edge node and a different connection via a second serving edge node. In fact, any exchange of connection parameters in McCanne could be the exchange of parameters that define similarities between different connections.

In the Office Action dated September 19, 2008, the Examiner alleges:

> Applicants argued McCanne failed to disclose receiving one or more diversity parameters defining one or more diversities between said connections and a further connection via a second serving edge node of said serving network, wherein said first serving edge node and said second serving edge node are different serving edge nodes. As best understood, Applicants are exchanging the IP addresses and configuration parameters of the two endpoints of the connection. The two endpoints are diversities, since they are not the same endpoint. Applicants limited amendments to correct the 112 deficiencies and limited

> explanation of both the invention and the McCanne reference have not assisted in explaining the invention in a manner that can interpret this in another manner.

In response, Appellants maintain the arguments above, and further submit that the Examiner still has not demonstrated that McCanne satisfies each and every feature of the claimed invention, as recited in the independent claims.

Independent claim 9, for example, recites a client node for performing a method for establishing a connection via a first serving edge node of a serving network. The method that is performed by the client comprises, *inter alia*, an operation of receiving one or more diversity parameters defining one or more diversities between said connection and a further connection via a second serving edge node of said serving network, wherein said first serving edge node and said second serving edge node are different serving edge nodes. That is, claim 9 describes a connection between a client edge node and first and second serving edge nodes; the client edge node receiving one or more diversity parameters defining one or more diversities between one connection (of a first serving edge node) and a further connection via a second serving edge node of the serving network. These particular features are not satisfied by McCanne, as McCanne only appears to describe a simple exchange of connection parameters. Nowhere does McCanne describe the claimed relationship between a client edge node and first and second serving edge nodes, as recited in claim 9, for example. Further, as previously argued, the exchange of connection parameters in McCanne could be the exchange of parameters that define similarities between different connections and not diversities (or differences).

Further, Appellants submit that McCanne is directed to application-level multicast groups mapped onto network-level IP multicast trees (that may be disjoint) by using overlay techniques.

McCanne describes vertical information exchanges and state maintenance procedures of these mappings.

The present invention can relate to and/or result in a mechanism to setup disjoint connections at the network-level so as to ensure diversity over hidden parts of the network (from the source-destination point of view).

However, in the prior art, Appellants do not discern teaching or suggest for setting up disjoint multicast distribution trees at the network level using any new mechanism e.g. multicast routing protocols such as PIM, DVMRP or mBGP or any new network-level multicast routing protocol.

At least based on the foregoing, Appellants submit that McCanne does not anticipate independent claim 1 and 9.

Applicants submit that independent claims 7, 8, and 10 are patentable at least based on reasons similar to those set forth above with respect to claims 1 and 9, as claims 7, 8, and 9 recite features similar to those discussed above with respect to claims 1 and 9.

Appellants submit that dependent claims 2-6 are patentable at least by virtue of their indirect or direct dependencies from independent claim 1.

B. Provisional Double Patenting Rejections Should be Held in Abeyance.

Claims 1 and 7-10 are provisionally rejected over App '212.

Appellants respectfully request that this rejection be held in abeyance until the other pending application issues as a patent. Specifically, according to MPEP § 804 I.B., if a provisional double patenting rejection in one application is the only rejection remaining, then the

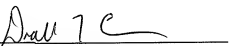
Examiner should withdraw the provisional rejection and permit that application to issue as a patent, thereby converting the provisional double patenting rejection in the other application, i.e., App '212, into a bona fide double patenting rejection at the time the one application issues as a patent. Therefore, if all other claim rejections are withdrawn in the present application, claims 1 and 7-10 should be found allowable and the present application should be permitted to issue as a patent.

Conclusion

In summary, at least based on the foregoing, Appellants submit that the Examiner has not demonstrated that each and every feature of the claimed invention, as set forth in claims 1-10, is taught and/or suggested by the applied art. Therefore, Appellants submit that claims 1-10 are patentably distinguishable over the applied art.

The USPTO is directed and authorized to charge the statutory fee (37 C.F.R. §41.37(a) and 1.17(c)) and all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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CLAIMS APPENDIX

CLAIMS 1-10 ON APPEAL:

1. A method for establishing a connection via a first serving edge node of a serving network, said method comprising:

receiving one or more diversity parameters defining one or more diversities between said connection and a further connection via a second serving edge node of said serving network, wherein said first serving edge node and said second serving edge node are different serving edge nodes; and

exchanging information between said serving edge nodes and, in response to exchanged information, setting up at least a part of said connection.

2. The method according to claim 1, wherein said first serving edge node is coupled via a first client edge node to a client source node in a client network, and said second serving edge node is coupled via a second client edge node to said client source node in said client network,

said first client edge node and said second client edge node being different client edge nodes situated in said client network.

3. The method according to claim 1, wherein said exchanged information comprises a request flowing from said first serving edge node to said second serving edge node, at least a part of each connection being defined by one or more connection parameters.

4. The method according to claim 1[4], wherein said exchanged information comprises one or more further connection parameters defining at least a part of said further connection and flowing from said second serving edge node to said first serving edge node, said first serving edge node calculating at least a part of said connection.

5. The method according to claim 4, wherein said exchanged information comprises one or more connection parameters defining at least a part of said connection and flowing from said first serving edge node to said second serving edge node, said second serving edge node calculating at least a part of said connection.

6. The method according to claim 3, wherein a connection parameter comprises at least one of a connection identification, a connection node, a connection link, a connection resource, a connection source and a connection destination, and

wherein a diversity parameter comprises at least one of a link diversity, a node diversity, a resource diversity, a shared risk diversity, a link non-diversity, a node non-diversity, a resource non-diversity and a shared risk non-diversity.

7. A serving edge node for performing a method for establishing a connection via a first serving edge node of a serving network, said method comprising:

receiving one or more diversity parameters defining one or more diversities between said connection and a further connection via a second serving edge node of said serving network, wherein said first serving edge node and said second serving edge node are different serving edge nodes; and

exchanging information between said serving edge nodes and, in response to exchanged information, setting up at least a part of said connection,

said serving edge node comprising:

a request-transceiver for transceiving a request to/from another serving edge node;

a connection-parameter-transceiver for transceiving connection parameters to/from another serving edge node; and

a calculator for calculating at least a part of said connection.

8. An interface in a serving edge node for performing a method for establishing a connection via a first serving edge node of a serving network,

said method comprising:

receiving one or more diversity parameters defining one or more diversities between said connection and a further connection via a second serving edge node of said serving network, wherein said first serving edge node and said second serving edge node are different serving edge nodes;

exchanging information between said serving edge nodes and, in response to exchanged information, setting up at least a part of said connection,

said interface comprising:

a request-transceiver for transceiving a request to/from another serving edge node;

a connection-parameter-transceiver for transceiving connection parameters to/from another serving edge node; and

a calculator for calculating at least a part of said connection.

9. A client edge node for performing a method for establishing a connection via a first serving edge node of a serving network, said method comprising:

receiving one or more diversity parameters defining one or more diversities between said connection and a further connection via a second serving edge node of said serving network, wherein said first serving edge node and said second serving edge node are different serving edge nodes; and

exchanging information between said serving edge nodes and, in response to exchanged information, setting up at least a part of said connection,

said client edge node comprising:

a diversity-parameter-transceiver for transceiving diversity parameters to/from another node; and

a connection-parameter-transceiver for transceiving connection parameters to/from another node.

10. An interface in a client edge node for performing a method for establishing a connection via a first serving edge node of a serving network,

said method comprising:

receiving one or more diversity parameters defining one or more diversities between said connection and a further connection via a second serving edge node of said serving network, wherein said first serving edge node and said second serving edge node are different serving edge nodes; and

exchanging information between said serving edge nodes and, in response to exchanged information, setting up at least a part of said connection,

said interface comprising:

a diversity-parameter-transceiver for transceiving diversity parameters to/from another node; and

a connection-parameter-transceiver for transceiving connection parameters to/from another node.

EVIDENCE APPENDIX:

NONE.

RELATED PROCEEDINGS APPENDIX

NONE.